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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

MEROUAN, ABDERRAHIM

ART UNIT

PAPER NUMBER

2628

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/596,291	Applicant(s) GRAVES ET AL.	
	Examiner ABDERRAHIM MEROUAN	Art Unit 2628	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 June 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>03/14/2007</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. This application does not contain an abstract of the disclosure as required by 37 CFR 1.72(b). An abstract on a separate sheet is required.

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 18-20 are rejected under 35 U. S. C. 101 because the claimed invention is directed to non-statutory subject matter as follows:

Claims 18-20 fail to fall within a statutory category of invention. It is directed to the program itself, not a process occurring as a result or executing the program, a machine programmed to operate in accordance with the program nor a manufacture structurally and functionally interconnected with the program in a manner which enables the program to act as a computer component and realize its functional interconnected clearly not directed to a composition of matter. Therefore, it's non-statutory under 35 USC 101.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 3-9, 12, and 15-17 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by over Haala, Norbert (NPL, “Virtual City Models from Laser Altimeter and 2D Map Data”

http://www.ifp.uni-stuttgart.de/publications/1999/norbert_ohio.pdf) hereinafter referred as

Norbert

6. As per claim 1, Norbert discloses:

A method of producing a three dimensional model of a built up area comprising obtaining a plan image of a built up area(Norbert, Page 1 , Abstract, lines 1 to 6) and processing the plan image to provide a model template of the built up area by identifying boundaries defining built up area units(Norbert, Page 4 , Section 2, Part 2.1, lines 10 to 12 “ This view gives...”).

7. As per claim 3, Norbert discloses:

A method, further comprising obtaining image data of the built up area from at least one viewpoint in the built up area (Norbert, Page 3 , Section 2, Part 2.1, lines 12 to 13 “ As an alternative data source airborne...”)

8. As per claim 4, Norbert discloses:

A method, in which the image data is at least one of laser image scan data (Norbert, Page 3, Section 2, Part 2.1, lines 14 to 17 “For our test area the...”) and photographic image data (Norbert, Page 4, Section 2, Part 2.1, lines 9 to 10 “Figure 1 shows the result...”)

9. As per claim 5, Norbert discloses:

A method which the image data is correlated with the model template to identify built up area unit boundaries(Norbert, Page 4 , Section 2, Part 2.1, lines 10 to 12 “ This view gives...”).

10. As per claim 6, Norbert discloses:

A method in which image data showing a built up area unit is linked to the built up area unit on the model template(Norbert, Page 18 , Figure 17).

11. As per claim 7, Norbert discloses:

A method further comprising identifying the viewpoint on the model template and linking image data acquired from the viewpoint therewith (Norbert, Page 18 , Section 4, lines 2 to 7 “The rectified image section can.....”)

12. As per claim 8, Norbert discloses:

A method, further comprising tracing at least one nominal ray from a viewpoint(Norbert, Page 3 , Section 2, Part 2.1, lines 12 to 13 “ As an alternative data....”) and identifying a built up area unit intersected by the ray as visible from the viewpoint(Norbert, Page 3 , Section 2, Part 2.1,

line 18 “For an area covering data collection,..” and Page 4, Section 2, Part 2.1, lines 1 to 3 “laser beam is defected...”)

13. As per claim 9, Norbert discloses:

A method in which the built up area unit comprises an identifiable geographic element (Norbert, Page 13, Figure 10).

14. As per claim 12, Norbert discloses:

A method in which the plan image is a photographic plan image (Norbert, Page 2, Figure 1).

15. As per claim 15, Norbert discloses:

A method of producing a built up area database comprising providing a model template(Norbert, Page 6 , Section 3, lines 1 to 4 “ In order to separate...”), acquiring image data from at least one viewpoint in the built up area(Norbert, Page 3 , Section 2, Part 2.1, lines 12 to 13 “ As an alternative data....”), identifying the viewpoint on the model template and (Norbert, Page 4 , Section 2, Part 2.1, lines 10 to 12 “ This view gives...”) providing a link from the viewpoint on the model template to the associated image data acquired therefrom(Norbert, Page 18 , Section 4, lines 2 to 7 “The rectified image section can.....”).

16. As per claim 16, Norbert discloses:

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A method of producing a three dimensional model of a built up area comprising obtaining photographic image data and laser scan image data of a built up area unit and correlating the photographic image data(Norbert, Page 1 , Abstract, lines 1 to 6) and laser scan image data to provide a three dimensional facade image for the built up area unit (Norbert, Page 3 , Section 2, Part 2.1, lines 12 to 13 “ As an alternative data....”)

17. As per claim 17, Norbert discloses:

A method in which the photographic image data is spherical photographical image data(Norbert, Page 16 , Section 4, lines 1 to 3 “The creation of a 3D....”)

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Claim Rejections - 35 USC § 103

18. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made

19. Claims 2,10-11, and 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haala, Norbert (NPL, “Virtual City Models from Laser Altimeter and 2D Map Data”

http://www.ifp.uni-stuttgart.de/publications/1999/norbert_ohio.pdf) hereinafter referred as

Norbert, in view of Biswas P et Al (NPL: ”Leveraging Location-Based Services for Mobile

Applications. “

http://www.oracle.com/technology/products/spatial/pdf/location_based_svcs_twp.pdf)

hereinafter referred as Biswas.

20. As per claim 10 Norbert discloses:

A method as claimed in claim 9.

Norbert doesn't disclose: in which the built up area unit is identifiable by a postal address. However, Biswas discloses: in which the built up area unit is identifiable by a postal address(Biswas,Page 6, Section: Geocoding, lines 5 to 11).

It would have been obvious to one skilled in the art, at the time of the Applicant's invention, to incorporate the teachings of Biswas into the process taught by Norbert, because through such incorporation would provide an efficient three dimensional model of an urban area.

21. As per claim 11 Norbert discloses:

A method as claimed in claim 10

Norbert doesn't disclose: in which the built up area unit further comprises geographical elements in an environ associated with the postal address. However Biswas discloses: in which the built up area unit further comprises geographical elements in an environ associated with the postal address (Biswas, Page 6, Section: Geocoding, lines 12 to 19).

It would have been obvious to one skilled in the art, at the time of the Applicant's invention, to incorporate the teachings of Biswas into the process taught by Norbert, because through such incorporation would provide an efficient three dimensional model of an urban area.

22. As per claim 2, Norbert discloses:

A method , further comprising correlating the model template with a geographical database representing the built up area(Norbert, Page 2 , Section 1, lines 8 to 10, “Additionally, by”)

Norbert doesn’t disclose: assign identifiers from the geographical database to built up area units on the model template. However, Biswas discloses: assign identifiers from the geographical database to built up area units on the model template (Biswas, Page 6, Section: Geocoding, lines 1 to 3).

It would have been obvious to one skilled in the art, at the time of the Applicant's invention, to incorporate the teachings of Biswas into the process taught by Norbert, because through such incorporation would provide an efficient three dimensional model of an urban area.

23. As per claim 13, Norbert discloses:

A method of producing a three dimensional model of a built up area comprising obtaining a plan image of the built up area, processing the plan image to provide a model template(Norbert, Page 13, Figure 10).Norbert doesn’t disclose: correlating the plan image with a geographical database to assign identifiers to geographical elements on the model template. However, Biswas discloses: correlating the plan image with a geographical database to assign identifiers to geographical elements on the model template(Biswas, Page 6, Section: Geocoding, lines 8 to 11).

It would have been obvious to one skilled in the art, at the time of the Applicant's invention, to incorporate the teachings of Biswas into the process taught by Norbert, because through such incorporation would provide an efficient three dimensional model of an urban area.

24. As per claim 14, Norbert discloses:

A method of producing a three dimensional model of a built up area comprising providing a model template(Norbert, Page 1 , Abstract, lines 1 to 6) and processing the model template to identify boundaries defining built up area units, (Norbert, Page 4 , Section 2, Part 2.1, lines 10 to 12 “ This view gives...”).

Norbert doesn't disclose: the built up area units include an addressable geographical element and geographical elements in the environ thereof. However, Biswas discloses: the built up area units include an addressable geographical element and geographical elements in the environ thereof (Biswas, Page 6, Section: Geocoding, lines 12 to 15).

It would have been obvious to one skilled in the art, at the time of the Applicant's invention, to incorporate the teachings of Biswas into the process taught by Norbert, because through such incorporation would provide an efficient three dimensional model of an urban area.

25. Claims 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haala, Norbert (NPL, “Virtual City Models from Laser Altimeter and 2D Map Data”

http://www.ifp.uni-stuttgart.de/publications/1999/norbert_ohio.pdf) hereinafter referred as

Norbert, in view of O'Rourke (US PG PUB 20020070939 A1) hereinafter referred as Rourke.

26. As per claim 18, Norbert discloses: the method of claims 1;

Norbert doesn't disclose: A computer program comprising a set of instructions configured to implement the method of claims 1. However, Rourke discloses:
A computer program comprising a set of instructions configured to implement a method of coding and decoding three-dimensional data (Rourke, Page 3 , Paragraph[0050], lines 7 to 11)

It would have been obvious to one skilled in the art, at the time of the Applicant's invention, to incorporate the teachings of Rourke into the process taught by Norbert, because through such incorporation would provide a computer implementation of the three dimensional model of an urban area.

27. As per claim 19, Rourke discloses:

A computer readable medium storing a computer program 39(Rourke, Page 3 , Paragraph[0050], lines 1 to 3)

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28. As per claim 20, Rourke discloses:

A computer configured to operate under the instructions of a computer program (Rourke, Page 3, Paragraph [0050], lines 3 to 6)

. Conclusion

29. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ABDERRAHIM MEROUAN whose telephone number is (571)270-5254. The examiner can normally be reached on Monday to Friday 7:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Xiao Wu can be reached on (571) 272-7761. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Abderrahim Merouan

Patent Examiner

Art Unit 2628

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Supervisory Patent Examiner, Art Unit 2628

